

# “In Outer Space”



## Module 7, Warm-Up

### Prompt:

How close or far are the planets from the Sun? Follow the video or directions below to make a model that will help you see the distance between the planets.

### Materials:

- A large piece of paper or multiple pieces of regular-sized paper
- Scissors
- Tape or glue
- Markers, crayons, or colored pencils
- *Optional: Explorer Notebook*

### Instructions:

1. Follow along with Alissa (Science Programs Manager at Boston Children’s Museum) in [this video](#) to do the activity.
2. You can also follow the directions below:
  - a. Cut strips of paper (at least 4 inches or 10 centimeters long) and tape together the short sides until you have one strip that is as long as you with your arms held out to both sides.
  - b. On one end, write “Sun.”
  - c. On the other end, write “Pluto/Kuiper Belt.”
  - d. Fold the strip in half so the Sun and Pluto match up. Unfold the strip and on the line made by the fold, write “Uranus.”
  - e. Fold the strip on the same line and then fold it once more in half. Then unfold the strip.
    - i. You now have the “Sun” on one end, “Pluto/Kuiper Belt” on the other, and “Uranus” in the middle, with two more folded lines.
  - f. Label the fold closer to “Pluto,” “Neptune.”

- g. Then label the other fold that is closer to the “Sun,” “Saturn.”
  - h. Everything else fits between the “Sun” and “Saturn!”
  - i. Fold the “Sun” to meet “Saturn” and make a fold.
  - j. Unfold the paper and label the new fold, “Jupiter.”
  - k. Fold the strip so the “Sun” meets “Jupiter.”
  - l. Unfold the strip and write “Asteroid Belt” on the new fold.
  - m. Fold the strip so the “Sun” meets the “Asteroid Belt.”
  - n. Unfold the strip and label the new fold “Mars.”
  - o. Fold the strip so the “Sun” meets “Mars.” Make a crease and then fold that new section in half again.
  - p. Unfold the strip. You now have three folded lines.
  - q. Write the last three planets in this order, starting with the one closest to the “Sun:” Mercury, Venus, Earth.
3. Stretch out your paper and look at the distance between the planets. What do you notice? Does anything surprise you?

*For explorers using an Explorer Notebook:*

1. Write about some things you noticed about the distance between the planets.
2. Write any questions you have about the planets. With your grown-up, search for some answers.

Check out the last page for a page design idea. You can use this or set up your page however you want!

### **Resources:**

1. Explore the planets with amazing images and facts from [NASA](https://www.nasa.gov).

### **Extensions:**

The following are optional steps you can take if you want to extend this adventure:

1. Draw each planet on your paper.
2. Go to the “In Outer Space” topic on Flipgrid and share your creation!

## Explorer Notebook

You can use this to help you set up your Explorer Notebook!

### The Planets Module 7, Warm-Up

Some interesting things I noticed about the distance between parts of the solar system are:

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Questions I have about the planets:

Answers I found:
